

CONJUGATED LIGANDS FOR THE STIMULATION OF BLOOD
CELL PROLIFERATION BY EFFECTING DIMERIZATION OF THE
RECEPTOR FOR STEM CELL FACTOR

ABSTRACT OF THE DISCLOSURE

This invention provides a computer based method for preparing a stem cell factor (SCF) analog comprising the steps of: (a) providing computer expression of the three dimensional structure of an SCF molecule using its crystal structure; (b) selecting from the computer expression of step (a) at least one site on the SCF molecule for alteration; (c) preparing a SCF molecule having an alteration at said at least one selected site; and (d) optionally, testing the SCF molecule for a desired characteristic. This invention also provides SCF analogs and SCF ligand analogs prepared according to the above-described method. Compositions comprising SCF analogs or SCF ligand analogs prepared according to the above-described method effective to treat a subject and a pharmaceutically acceptable carrier are provided, as are methods of treating a subject comprising administration of pharmaceutical compositions comprising the prepared SCF analogs and SCF ligand analogs prepared by the described methods. This invention also provides methods for designing compounds capable of binding to the SCF receptor site and compounds designed by the above-described methods.